

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-5, 7-10, 12, 14-16, 18-21, 24, 26-28, and 30-32 are presently active in this case, Claims 1-5, 7, 9, 10, 12, and 14-16 having been amended by way of the present Amendment. Claims 6, 11, 13, 17, 22, 23, 25, and 29 have been canceled without prejudice or disclaimer. Support for the amendments can be found in the specification, for example, on page 8, line 32, through page 9, line 6.

Claims 5, 14, 21, and 26 are allowed. Claims 11-13, 15-17, 23-25, and 27-29 were indicated as containing allowable subject matter.

The Applicant wants to thank the Examiner for the indication of allowable subject matter. Please note that Claim 1 has been amended to depend from allowed Claim 5, and therefore Claim 1 and the claims that depend therefrom are in condition for allowance. The subject matter of previously pending Claim 1 and previously pending Claim 15 (without intervening claims) have been combined and written in independent form in Claim 15, therefore the art rejection of previously pending Claim 1 is addressed below with respect to presently pending Claim 15. Newly added Claims 30-32, which depend from Claim 15, include the subject matter of Claims 2-4.

In the outstanding Official Action, Claims 2, 9, 10, 12, 16, 24, and 28 were objected to for minor informalities. The claims have been amended as suggested in the Official Action. Thus, the Applicant respectfully requests the withdrawal of the objections to the

claims. Furthermore, Claims 12, 16, 24, and 28 are believed to be in condition for allowance, since the objections thereof have been overcome.

Claims 1-4 and 8 were rejected under 35 U.S.C. 103(a) as being unpatentable over Ahmadvand (U.S. Patent No. 6,477,670) in view of Dohi et al. (U.S. Patent No. 6,341,224). Claims 7 and 18-20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Ahmadvand and Dohi et al. in view of Hwang (U.S. Patent Pub. No. 2004/0057460). Claims 9 and 10 were rejected under 35 U.S.C. 103(a) as being unpatentable over Ahmadvand and Dohi et al. in view of Sarkkinen et al. (U.S. Patent No. 6,950,420). For the reasons discussed below, the Applicant requests the withdrawal of the art rejections.

The basic requirements for establishing a *prima facie* case of obviousness as set forth in MPEP 2143 include (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings, (2) there must be a reasonable expectation of success, and (3) the reference (or references when combined) must teach or suggest all of the claim limitations. The Applicant submits that a *prima facie* case of obviousness cannot be established in the present case because the references, either when taken singularly or in combination, do not teach or suggest all of the claim limitations, and because there is no motivation to combine the references to arrive at the present invention.

Claim 15 recites a system comprising, among other features, a first layer configured to manage a physical resource and to guarantee a quality of service, a first sub-layer, a second sub-layer, and a physical layer. The first layer guarantees the quality of service by assigning

a set level to the ratio of received signal power to noise plus interference, and the first layer allocates resources by reducing the set level of a low-priority service. The Applicant submits that the cited references, either when taken singularly or in combination, do not disclose all of the above limitations recited in Claim 15, and because there is no motivation to combine the references to arrive at the invention recited in Claim 15.

The Official Action notes that the Ahmadvand reference does not disclose assigning a set level to the ratio of received signal power to noise plus interference. (Page 5, lines 3-4.) The Official Action cites the Dohi et al. reference to supplement this deficiency in the teachings of the Ahmadvand reference. More specifically, the Official Action cites column 2, lines 48-59, of the Dohi et al. reference for such a teaching. This portion of the Dohi et al. reference describes a transmission power controller that measures a received signal-to-interference plus noise power ratio (SIR), compares a measured result of the received SIR with a predetermined target value of SIR, and outputs transmission power control information according to the comparison result. However, the Applicant submits that the Dohi et al. reference fails to disclose or suggest a first layer that allocates resources by reducing the set level of a low-priority service, and, in fact, the Dohi et al. reference teaches away from such a feature.

The Dohi et al. reference describes a transmission power controller used in digital telecommunications that has a specific objective "to achieve transmission power control which provides consistent channel quality irrespective of propagation environment or received SIR measurement accuracy. (Column 2, lines 43-47.) The Dohi et al. reference

describes a system in which transmission power control is used for controlling the transmission power so that a reception power received by the receiving station, or a SIR obtained from the received power is constant irrespective of the location of the mobile station, thereby obtaining a uniform channel quality within the service area. (Column 1, lines 29-35.) However, the Dohi et al. reference recognizes that there have been problems with measurement accuracy of the received signal, but that the object of the transmission power control is for maintaining channel quality (FER: frame error rate, or BER: bit error rate) of the channel in a predetermined quality. (See, e.g., column 2, lines 19-40.) Thus, with the aim of solving this problem, the Dohi et al. reference describes an invention that has the objective, as noted above, of achieving transmission power control which provides consistent channel quality irrespective of propagation environment or received SIR measurement accuracy. Thus, the Dohi et al. reference attempts to maintain consistent channel quality (FER and BER) by attempting to maintain a constant *actual* SIR (note discussion in column 1, lines 29-35, which indicates that constant actual SIR obtains a uniform channel quality) using imperfect measured received SIR values and target received SIR values that are derived from measured/target FER/BER values.

Thus, the Dohi et al. reference is intended to maintain a constant actual SIR value and therefore uniform channel quality using imperfect measured received SIR values. The Dohi et al. reference does not discuss the allocation of resources based on low-priority services. In fact, the Dohi et al. reference does not disclose or suggest any type of distinction between low-priority services as such would be compared with other services. To the contrary, the

Dohi et al. reference describes uniformity in the system. Furthermore, the Dohi et al. reference does not disclose or suggest a first layer that allocates resources *by reducing the set level* of a low-priority service. Again, to the contrary, the Dohi et al. reference specifically defines the objective of the invention therein to provide consistent channel quality. Thus, the reduction in the set level, as defined in Claim 15, would be contrary to the teaching in the Dohi reference where consistent, uniform channel quality is the goal.

Accordingly, the Applicant respectfully submits that not only does the Dohi et al. reference fail to disclose or suggest a first layer that allocates resources by reducing the set level of a low-priority service as recited in Claim 15, but the Dohi et al. reference in fact teaches away from such a feature and therefore one of ordinary skill in the art would not have modified the Dohi et al. reference to include such a feature or combined the teachings of the Dohi et al. reference with a reference that teaches such a feature, since such a combination would have been contrary to the teachings of the Dohi et al. reference. Thus, even assuming *solely for the sake of argument*, that the Ahmadvand reference is believed to teach such a feature, the Applicant respectfully submits that such a combination would be contrary to the teachings of the Dohi et al. reference. Furthermore, the Applicant notes that the Official Action acknowledges that the Ahmadvand reference does not disclose assigning a set level to the ratio of received signal power to noise plus interference, and thus it stands to reason that the Ahmadvand reference also does not disclose the reduction of such a set level for any reason.

Application Serial No.: 09/824,772  
Reply to Office Action dated September 21, 2006

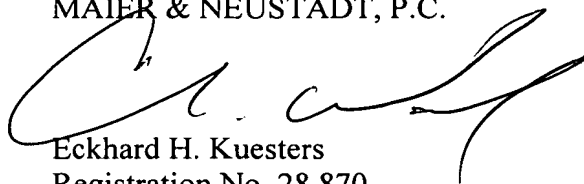
Thus, the Applicant respectfully submits that the combined teachings of the Ahmadvand reference and the Dohi et al. reference do not establish a *prima facie* case of obviousness for Claim 15 of the present application. Accordingly, the Applicant requests the withdrawal of the obviousness rejection of Claim 15.

The rejected dependent claims are considered allowable for the reasons advanced for the respective independent claim from which they depend. These claims are further considered allowable as they recite other features of the invention that are neither disclosed nor suggested by the applied references when those features are considered within the context of their respective independent claim.

Consequently, in view of the above discussion, it is respectfully submitted that the present application is in condition for formal allowance and an early and favorable reconsideration of this application is therefore requested.

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